Remarks

I. Status of the Claims

Upon entry of the foregoing amendment, claims 62-90 are pending in the application, with claims 62 and 90 being the independent claims. Claim 1 is sought to be cancelled without prejudice to or disclaimer of the subject matter therein. New claims 62-90 are sought to be added. These changes are believed to introduce no new matter, and their entry is respectfully requested.

II. Support for the Amendments

A. In the Specification

Applicants have amended the specification by adding sequence identification numbers in the appropriate places throughout the specification in accordance with 37 CFR §§ 1.821-1.825. Support for these amendments can be found, *inter alia*, in the sequence listing that was submitted with the application at the time of filing. Therefore, these amendments to the specification add no new matter; their entry and consideration are respectfully requested.

B. In the Claims

Support for new claim 62 can be found, *inter alia*, in the specification at page 10, lines 4-13, and in original claim 23. Support for new claim 63 can be found, *inter alia*, in the specification at page 26, lines 18-21, and in original claim 25. Support for new claims 64 and 65 can be found, *inter alia*, in original claims 2 and 3, respectively. Support for new claim 66 can be found, *inter alia*, in the specification at page 29, lines 13-15, and in original claim 3. Support for new claims 67-74 and 82 can be found, *inter alia*, in original claims 4-11, respectively. Support for new claims 75-81 can be found, *inter alia*, in the specification at page 31, line 17, through page 32, line 2. Support for new claims 83 and 84 can be found, *inter alia*, in the specification at page 7, lines 25-27. Support for new claims 85-87 can be found, *inter alia*, in original claims 13-17, respectively. Support for new claims 88 and 89 can be found, *inter alia*, in original claims 13-17, respectively. Support for new claims 88 and 89 can be found, *inter alia*,

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in the specification at page 51, lines 2-5. Support for new claim 90 can be found, *inter alia*, in the specification at page 10, lines 21-25. Therefore, these amendments to the claims add no new matter; their entry and consideration are respectfully requested.

Conclusion

It is believed that the present application is in condition for immediate examination. Early notice to this effect is earnestly solicited.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Frank R. Cottingh-

Frank R. Cottingham Attorney for Applicants

Registration No. 50,437

Date: 6/17/02

1100 New York Avenue, N.W. Washington, D.C. 20005-3934

(202) 371-2600

Version with markings to show changes made

In the Specification:

Please substitute the paragraph beginning on page 39, line 12, with the following paragraph:

Sequence A (SEQ ID NO:1) shows a portion of DNA sequence spanning the junction between the region unique to the COLIA1 locus and the 5' region of shared homology with the COLT-1 vector. The position and orientation of the COLTPCR4 primer is shown.

Please substitute the paragraph beginning on page 39, line 16, with the following paragraph:

Sequence B (SEQ ID NO:2) shows a portion of DNA sequence spanning the junction between the IRES neo gene and the 5' region of shared homology. The position and orientation of the COLTPCR8 primer is shown.

Please substitute the paragraph beginning on page 40, line 1, with the following paragraph:

The upper portion shows the sequence (SEQ ID NO:3) of the 5' end of the linearised COLT-1 gene targeting vector. Terminal sequence derived from a cloning vector is indicated.

Please substitute the paragraph beginning on page 40, line 4, with the following paragraph:

The middle portion shows a portion of the sequence (SEQ ID NO:4) of the diagnostic 3.4 kb fragment amplified from each of the targeted cell clones 6, 13 and 14 spanning the junction between the region unique to the COLIA1 locus and the 5' region of shared homology with the COLT-1 vector.

Please substitute the paragraph beginning on page 40, line 9, with the following paragraph:

The lower portion shows the sequence (SEQ ID NO:5) of the PDFF2 COLIA1 locus over the same region.

Please substitute the paragraph beginning on page 43, line 27, and bridging to page 44, with the following paragraph:

The upper portion shows the sequence (SEQ ID NO:6) of the portion of the circular gene targeting vectors pPL501 and 502 at the 3' end of the 3' homologous arm of each. The junction between the 3' region of homology to the porcine $\alpha 1,3$ GT gene and bacterial plasmid sequence is indicated.

Please substitute the paragraph beginning on page 44, line 4, with the following paragraph:

The lower portion shows the sequence (SEQ ID NO:7) of the diagnostic 2.65 kb fragment amplified from four of the targeted cell clones spanning the junction between the region unique to the 1,3-GT locus and the 3' region of shared homology with the α 1,3-GT gene targeting vector. The sequence derived from each clone was identical.

Please substitute the paragraph beginning on page 44, line 24, with the following paragraph:

The upper portion shows the sequence (SEQ ID NO:8) of the portion of the circular gene targeting vector pPL522 at the 3' end of the 3' homologous arm of each. The junction between the 3' region of homology to the bovine BLG gene and bacterial plasmid sequence is indicated.

Please substitute the paragraph beginning on page 45, line 1, with the following paragraph:

The lower portion shows the sequence (SEQ ID NO:9) of the diagnostic 2.3 kb fragment amplified from three of the targeted cell clones spanning the junction between the region unique to the BLG locus and the 3' region of shared homology with the BLG gene targeting vector. The sequence derived from each clone was identical.

Please substitute the nucleotide sequence designation at page 63, line 7, with the following:

BLAT3-3: TAAGAGGCTGACCCCGGAAGTGTT (SEQ ID NO:10)

Please substitute the nucleotide sequence designation at page 63, line 8, with the following:

COLTPCR8: GACCTTGCATTCCTTTGGCGAGAG (SEQ ID NO:11)

Please substitute the nucleotide sequence designation at page 66, line 6, with the following:

GAGTGGTTCTGTCAATGCTGCT (5') (SEQ ID NO:12)

Please substitute the nucleotide sequence designation at page 66, line 7, with the following:

GGAAGCTCTCCTCTGTTGTCTT (3') (SEQ ID NO: 13)

Please substitute the nucleotide sequence designation at page 66, line 17, with the following:

GGTGGATGATATCTCCAGGATGCCT (5') (SEQ ID NO:14)

Please substitute the nucleotide sequence designation at page 66, line 18, with the following:

GCTGTTTAGTCATGAGGACTGGGT (3') (SEQ ID NO:15)

Please substitute the nucleotide sequence designation at page 68, line 8, with the following:

Neo442s: CATCGCCTTCTATCGCCTTCTT (5') (SEQ ID NO:16)

Please substitute the nucleotide sequence designation at page 68, line 9, with the following:

Alpha-Gte9a2: AGCCCATCGTGCTGAACATCAAGTC (3') (SEQ ID NO:17)

Please substitute the nucleotide sequence designation at page 70, line 30, with the following:

BoBLGpro: 5' CCA GTG CTG ATT TGA TTT CCT ACT CAC GCC 3' (SEQ ID NO:18)

Please substitute the nucleotide sequence designation at page 71, line 1, with the following:

BoBLGpro7: 5' ACC TTC TGG ATA TCC AGG CCC TTC ATG GTC 3' (SEQ ID NO:19)

Please substitute the nucleotide sequence designation at page 72, line 26, with the following:

Neo442s: 5' CAT CGC CTT CTA TCG CCT TCT T 3' (SEQ ID NO:16)

Please substitute the nucleotide sequence designation at page 72, line 27, with the following:

BLG3'1: 5' CCA GCA CAA GGA CTT TGT TCT C 3' (SEQ ID NO:20)

In the Claims:

Please cancel claim 1 without prejudice or disclaimer.

Please add claims 62-90.

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